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ABSTRACT

This paper summarizes a study conducted to determine whether sustained silent reading (SSR) can contribute to improvement in grammar and reading comprehension in university academic English as a foreign language (EFL) courses. A total of 186 beginning and intermediate students enrolled in the English for Academic Purposes program at the Universidad Nacional Pedro Henriquez Urena in Santo Domingo, Dominican Republic were divided into experimental and control groups. The control groups followed the normal course syllabus, while the experimental group engaged in SSR of relevant journal articles for 30 of the total 150 minutes of instruction each week for 10 weeks. Pre- and post-intervention tests using the Best and Ilyin English grammar exams and the Newbury House TOEFL Preparation Course exams found a noticeable improvement in English grammar and a very slight reading comprehension loss among SSR students. But given the wide range of student scores these results were not statistically significant. The paper includes 5 charts, 4 graphs, and 7 tables that highlight experimental studies on SSR and the results of the present study. (Contains 46 references.) (MDM)

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ED 369 264

Sustained Silent Reading in University Courses in EFL for Academic Purposes

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The original research question was: Will sustained silent reading (SSR) as an additional component of standard university English as a foreign language (EFL) courses for academic purposes result in an improved language competency? A corollary question that arose during research was: Does SSR result in a positive attitude towards EFL?

This study, apparently the first in its field (SSR in EFL or in EAP), was an attempt to determine whether or not sustained silent reading can contribute to improvement in grammar and reading comprehension in university academic English foreign language courses.

One hundred eighty six (186) beginning and intermediate level students, (as determined by the University of Michigan structure exam) who were enrolled in English for Academic Purposes (EAP) in English as a Foreign Language (EFL) at the Universidad Nacional Pedro Henríquez Ureña (UNPHU) in Santo Domingo, the Dominican Republic, were divided by class sections into control and experimental groups. Both controls and experimentals followed their usual syllabi, but during ten weeks within the January-April 1991 semester, the experimentals also were engaged for 30 of 150 minutes weekly in sustained silent reading of articles selected by previous students from recent technological journals in their fields of study: computer programming, health sciences, psychology and chemistry. All students were subjected both to Best and Ilyin English grammar structure exams (STEL forms 2 and 1) and Newbury House TOEFL Preparation Course reading comprehension exams (forms 1 and 2) as pre- and post-tests of achievement.

The results of controls and experimentals were analyzed statistically as to over-all and control and experimental aggregrate increases or decreases in scores; controls and experimentals were focused on by areas of study for each group's aggregate gain or loss, and analyses were performed with measures of statistical significance for increase or decrease in grammar structure and reading comprehension after taking into account the variables of teachers involved, student ages, sex and English level.

With the SSR treatment there was a noticeable mathematical improvement in English grammar and a very slight reading comprehension loss, but given the wide range of student scores, they were not statistically significant.
These findings parallel those of Petrimoulx (1988); let us recall that Everett (1987) and Manning-Dowd (1985) obtained mixed results among their subjects for reading comprehension and achievement. On the other hand, Farrell (1982) and Kefford (1981) each reported dramatic increases in reading achievement, but it must be pointed out that their studies covered one year and six months, respectively.

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The UNPHU students had been as randomized as possible, their class sections depending only on university scheduling hours. There was an average "superiority" on the part of the experimental students of 5.1 points in both pre- and post- test grammar, and 3.3 and 2.4 points, respectively, for the pre- and post test in reading comprehension. The data show that both control and experimental students showed the same change over time, so our first tentative conclusion was that the SSR treatment did not contribute to more language competency than the usual program of grammar work and intensive reading. However, SSR as a substitute for this classroom practice did not result in less competency for the treatment group! We expect that the use of more sensitive reading comprehension instruments or a longer treatment period might yield more significant results.

Sixty-two percent (62%) of experimental studies in SSR had shown a positive attitude towards reading after treatment; the others did not report it. The UNPHU experiment included a questionnaire on the students' previous English and subject matter knowledge before and after the SSR treatment. 92 of the 99 experimental students felt that SSR had helped their English vocabulary, grammar, reading and comprehension.

This UNPHU study then, also showed positive acceptance of the SSR treatment and positive mathematical improvement, even if not statistically significant results. In view of the fact that the SSR treatment gave no negative effects, and since, to quote Krashen (1989) "nearly everyone in the language teaching profession agrees that reading is beneficial", and since the SSR materials made available to the UNPHU students are directly concerned with their professional studies, and because SSR may lead to continued individual reading and increased understanding and even enjoyment of technical reading, it is the opinion of the researcher that SSR should be continued as part of the EAP courses.

As far as further research is concerned, one may wish to replicate or vary this work in order to do a longer term study, include more students, program longer or additional periods of SSR per week, complement them with other metacognitive activities immediately afterward, or experiment with SSR as an additional period of class. If we were to do this study again we would recommend that teachers always read while the students are reading, that there be both pre- and post questionnaires regarding habits and attitudes for both control and experimental students; that the questionnaire cover previous reading and the amount of time spent on reading in English before and after the experiment. As the TOEFL exams are not meant for beginning or intermediate students, and simply may have not been sensitive to slight differences among these students' progress across a relatively short period of time, we recommend that another instrument, perhaps the Gates MacGinitie Reading Test, which was unavailable to us, be utilized. Obviously, if larger groups of students were available who could receive the SSR treatment over a year, with follow up of their reading habits in English, we would have an almost ideal experimental situation.

Attached: 12 pages of bibliography, tables and graphs. June, 1991

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Chart 1

Experimental Studies on Sustained Silent Reading (SSR)

Study	L_1	EFL	Pre-K	1-3	4-6	Jrhi	Hi Sch	coll	reading comprehension	read achievement	writ	vocab	gram	attitude
Holt+O'Tuel 1989	✓					2 yrs below level	7+8			+	+			+
Dwyer+Reed 1989	✓	no demonstrable effect on either sex												boys poorer
Petrimoulx 1988		10 min/ day 15 weeks adult						16 Ss 10 countries	+but not sig +at home			not sign +		+
Rossman 1987	20 min/ day ✓			deaf ✓	5-10 yrs old ✓									+
Everett 1987	15 min/day/3wks recreational reading					18 Ss 8th grade			Some+ none-					+ boys + girls
Aranha 1985		"English sch near Bombay"				4 th grade				+				+
McEachern		B.C. Native Indian teachers! 20-30 min/day												+
Manning -Dowd 1985	review-mixed results but ✓		✓	✓	✓	✓				+=6 not sig =5				+
Burkhart 1983	+ 10 wk			20 2nd graders										+
Combs + van D. 1984	14 Ts 136 Ss				grades 3-6									+
Manning +Manning 1984					grade 4				peer interaction model better than 30 others incl SSR					
Langford + Allen	✓				grades 5+6					+				?

Study	L_1	ESL	EFL	pre-K	1-3	4-6	jrhi	hi sch	coll	reading comp	read achiev	writ	gram	att
Farrell 1982	entire school yr									+ dramatic				+ dramatic interest
Refford 1981	1 period/wk 6 mos						grade 7			+				
Teaching Guide 1981	Booktime= modified SSR				1st grade poor readers		positive results (unspecified)							
Burley 1980	SSR better than progammed textbooks, cassettes or skill developmental kits						Upward Bound			+ literal + inferencial and + speed				
Cline + Kretke 1980	✓						✓				no effect but			+
Hinton 1980	✓						9th grade			-(?)		suggests reasons for failure		-
Coley 1983	2 Proyect Read (=E) Schools in DC 2 other (+c) in DC 6 mos						7+8 grade 9th			- 8 months or more lower but still sig				
Coley 1981	Project Read					81 5th graders								highly +
Flynn 1980	day 15/min SSR or 10 wks reading kit											David + Bartholmew		
Einhrn 1979	15 min/day 10 wks SSR or reading kits													no sig diff boys had poorer attitude

Chart 2: Experimental Design: Characteristics of Groups

Group No.	LEX Dept. Course No.	Control or Experiment	English Level	Area of Studies	day or night	Professor	Final No. Ss	Length of time
1	LEX-125-01	control	beginning	comp. prog.	day	M.M	40	30/150 min
2	LEX-125-02	experiment	beginning	comp. prog.	day	M.M.	36	30/150 min
3	LEX-126-01	experiment	intermediate	comp. prog.	day	M.M.	34	30/150 min
4	LEX-126-02	control	intermediate	comp. prog.	day	M.M.	19	30/150 min
5	LEX-126-03	experiment	intermediate	comp. prog.	night	M.M.	18	30/150 min
6	LEX-113-71	control	beginning	health sciences	day	I.U.	10	30/150 min
7	LEX-113-72	experiment	beginning	health sciences	day	I.U.	9	30/150 min
8	LEX-128-01	experiment	intermediate	health sciences	day	E.D.	7	30/150 min
9	LEX-124-01	control	intermediate	psychology	day	E.D.	6	30/150 min
10	LEX-115-01	experiment	intermediate	chemistry	day	E.D.	7	60/200 min
otals:	10 sections	4 C	4 B	U = 5	D = 9	M = 5	186	
		6 X	6 I	H = 3	N = 1	I = 2	C = 75	J = 9
				Y = 1		D = 3	X = 111	K = 1
				Q = 1				

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professor
Area: 1=prog 2=Health 3=Psi 4=chem
level 0=beginning 1=intermed
day=0 night=1
control=0 experiment=1

Chart 3

Difference between pre + post test scores:
total of scores/number of students = average gain (+) or loss (-)

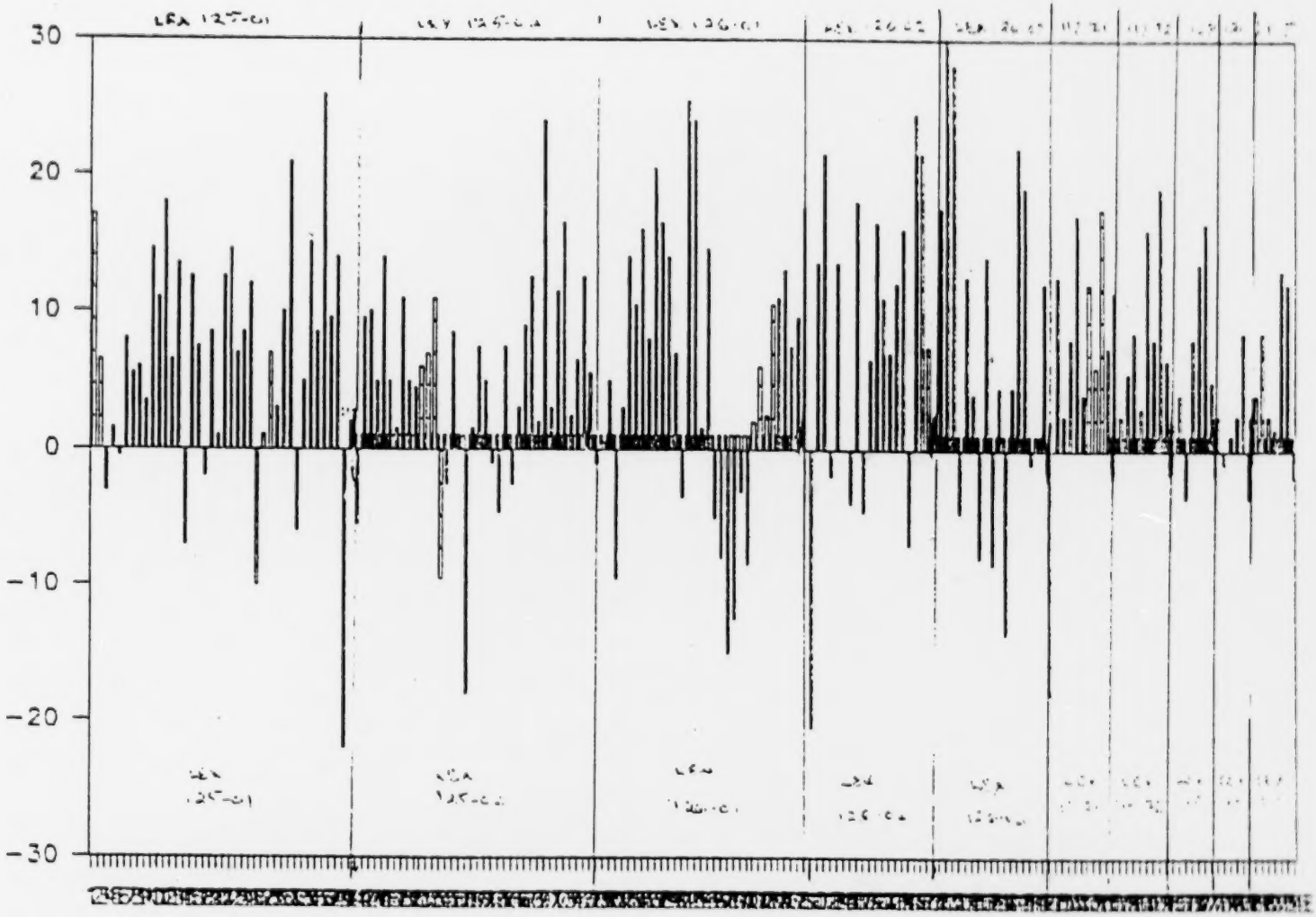
P	A	L	D	U		Grammar		Reading	
1	1	0	0	0	(LEX-125-01)	474/41=	+11.56	330/40=	+8.25
1	1	0	0	1	(LEX-125-02)	434/36=	+12.05	-7.4/36=	-2.05
1	1	1	0	0	(LEX-126-01)	584/34=	+17.17	-178/3.5=	-5.08
1	1	1	0	1	(LEX-126-02)	348/20=	+17.4	- 36/19=	-1.89
1	1	1	1	0	(LEX-126-03)	218/18=	+12.11	54/18=	+3
2	2	0	0	0	(LEX-113-71)	124/10=	+12.4	14/10=	+1.4
2	2	0	0	1	(LEX-113-72)	132/10=	+13.2	43/9 =	+4.77
3	2	1	0	1	(LEX-128-01)	88/7 =	+12.57	- 4/7 =	-0.57
3	3	1	0	0	(LEX-124-01)	64/6 =	+10.66	- 44/6 =	-7.33
3	4	1	0	1	(LEX-115-01)	30/7 =	+ 4.285	49/7	+7.0

Chart 4

Totals of Experimental Students' Responses on Evaluation Sheets

	General Total	125-02	126-01	126-03	113-72	128-01	115-01
no of respondents	99	35	32	17	8	0	7
no of missing respondents	12	1	2	1	1	7	0
ques #1 No	7	2	1	2	2		0
Yes	92	33	31	15	6		7
Vocab	39	16	10	6	3		4
Gram	39	14	13	6	6		0
Reading	10	1	4	1	0		4
Speaking	4	2	2	0	0		0
Writing	1	0	1	0	0		0
Speed	1	1	0	0	0		0
Comprehension	20	9	9	2	0		0
Area of Studies	18	6	8	3	1		0
ques #2 0%	12	8	2	2	0		0
15%	1	-	1	-	-		-
25%	35	18	10	4	2		1
50%	26	4	10	5	3		4
75%	23	5	7	6	3		2
95%	2	0	2	0	0		0
ques #3 No	1	0	0	0	0		1
Yes	98	35	32	17	8		6
a little	43	20	10	10	2		1
pretty much	42	12	14	7	5		4
a lot	13	3	8	0	1		1
ques #4 No	29	14	6	3	4		2
Yes	70	21	26	14	4		5
area journals	40	11	15	7	3		4
area books	5	1	1	2	1		1
general magazines	20	8	9	3	0		0
general books	8	1	4	2	1		0
newspapers	4	3	0	1	0		0
games	1	0	0	1	0		0
songs	2	1	1	0	0		0

Graph 1



Range of student increase/decrease scores (E = g + r) presented by class groups

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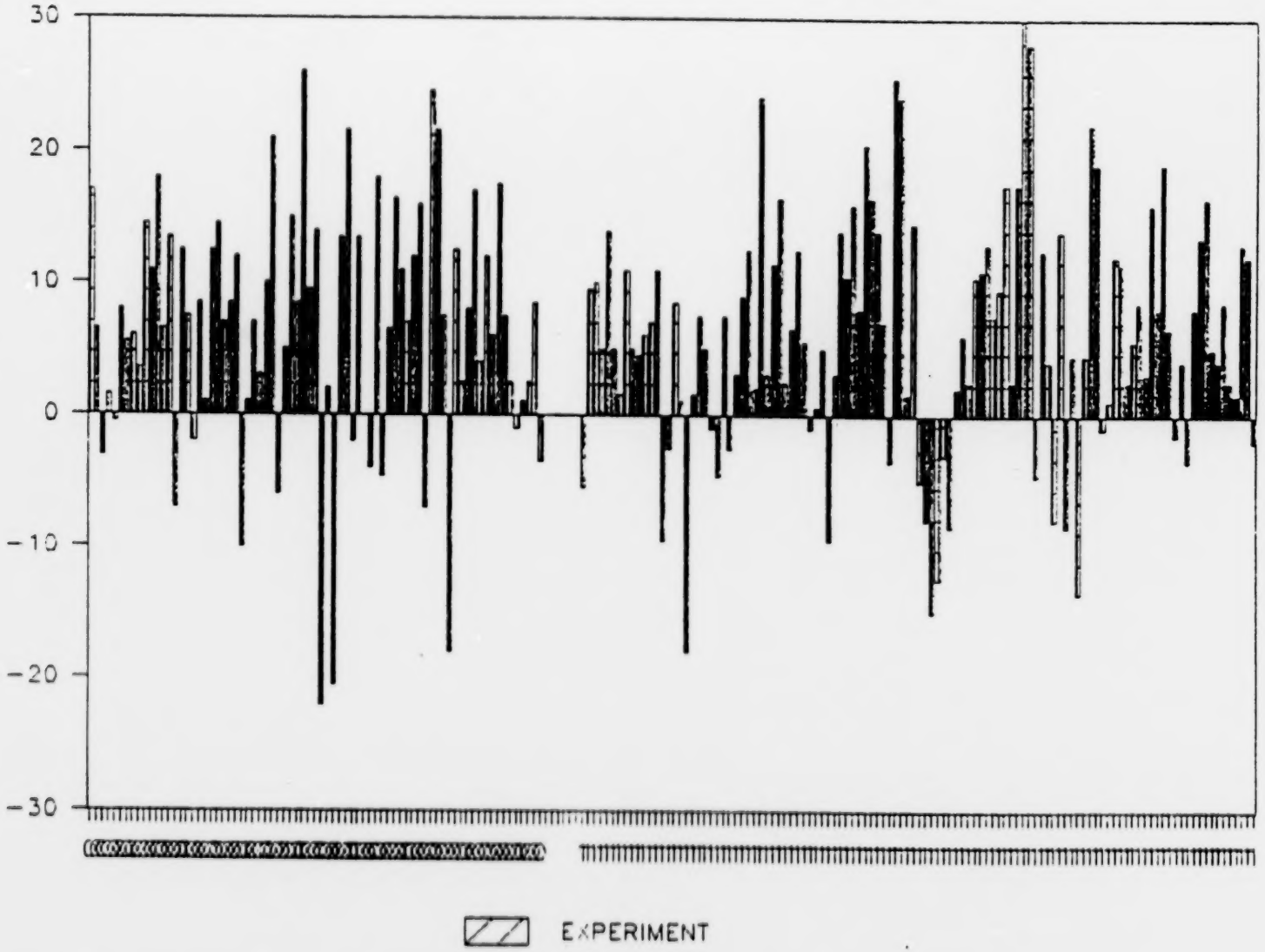
Graph 2



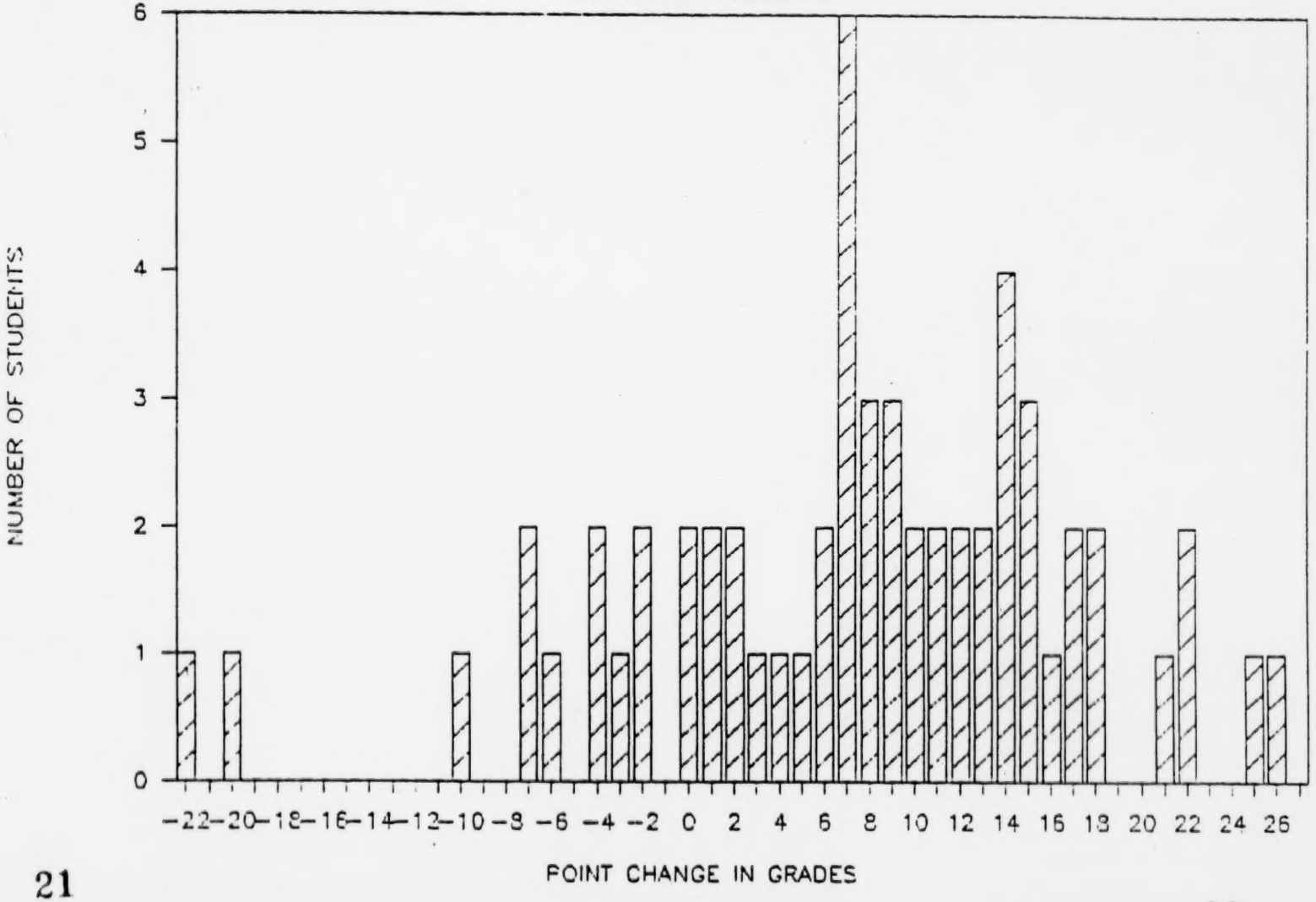
Range of student scores (E = g + r) as increase or decrease between pre- and post tests presented as control groups and experimental groups

Graph 3

LEX 125 -01

CONTROL S' FREQUENCY DISTRIBUTION

COMPUTER STUDENTS



Graph 4

LEX 125 - 02

EXPERIMENTAL S' FREQUENCY DISTRIBUTION

COMPUTER STUDENTS

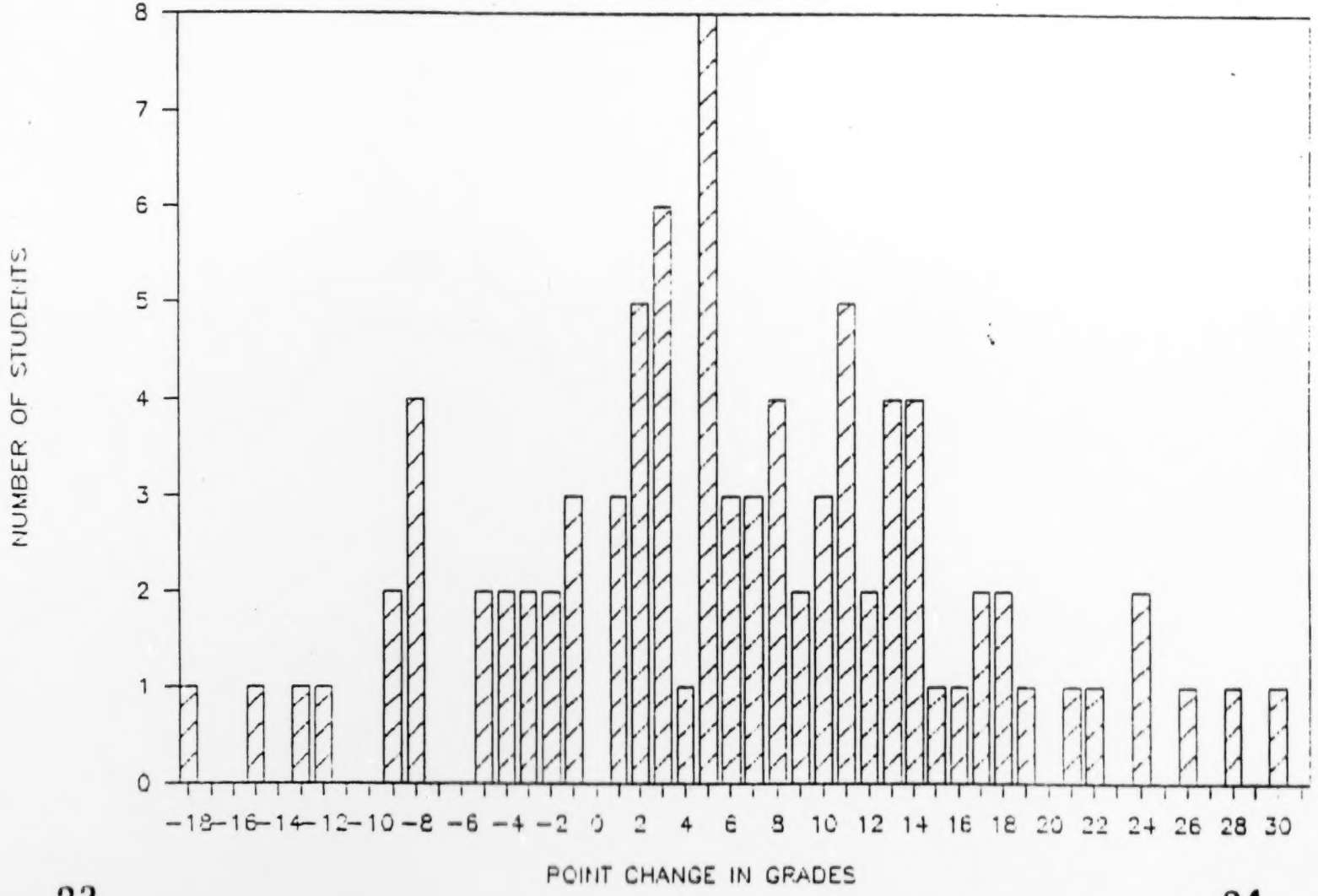


Table 1

Mathematical Differences between Pre. and Post. Test Scores

		C. Ss	X Ss	All Ss
Grammar	Pre	40.0	45.1	43.0
	Post	53.3	58.4	56.0
Reading	Pre	31.6	34.9	33.6
	Post	31.5	33.9	32.9

Table 2

"Superiority" difference between Experimentals and Controls

	C. Ss	X Ss
Grammar pre		5.1
Grammar post		5.1
Reading pre		3.3
Reading post		2.4

Table 3

Improvement/Loss between pre and post tests

	C. Ss	X Ss	All Ss
Grammar	13.3	13.3	13.2
Reading	-0.10	-1.0	-0.79
E (g + r)			+7.04

Table 4

Standard Deviations for Control and Experimental Students in pre- and post Tests

		C. Ss	X.Ss
Grammar	pre-	$SD^{\pm}$ 15	$SD^{\pm}$ 16
	post	$SD^{\pm}$ 15	$SD^{\pm}$ 17
Reading	pre	$SD^{\pm}$ 11	$SD^{\pm}$ 13
	post	$SD^{\pm}$ 9	$SD^{\pm}$ 13

Table 5

Results of R squared tests for each Variable

X = E dependent

E = f (variable)

y = f independent

Y	year of birth	= .008449
S	sex	= .013
M	professor M	= .0011
I	professor I	= .0032
D	professor D	= .0042
N	day/night	= .0019
L	60/60 minutes	= .0004
U	programing Ss	= .000056
H	healt Sciences	= .002105
Y	psychology	= .0084
Q	chemistry	= .000207
B	beginning	= .00015
I	intermediate	
C	control	= .000772
X	experimental	
	grammar re level	= .009496
	reading re level	= .007616
	grammar re treatment	= .000008
	reading re treatment	= .001342

Table 6

R Squared and Student T Values for
Control and Experimental Computer Programming Students
in Grammar and Reading

	R Squared	Student T
U.C. Ss Grammar	.3170	4.20
U.C. Ss Reading	.01384	0.73
U.X. Ss Grammar	.4435	7.36
U.X. Ss Reading	.1405	3.34

Table 7

R Squared Values

Overall Statistical differences between pre- and post tests

Grammar	R Square = 0.497808
Reading	R Square = o.181666

Table 8

Mean scores of two Computer Programming groups (E = g + r)
increase or decrease between pre- and post tests

LEX 125-01 (1 1 0 0 0) mean = 7
LEX 125-02 (1 1 0 0 1) mean = 6

N.B. See Graphs 3 and 4 for Frequency Distributions of these groups.